



**DIELECTROPHORESIS DEVICE AND METHOD HAVING
NON-UNIFORM ARRAYS FOR MANIPULATING PARTICLES**

ABSTRACT OF THE DISCLOSURE

Microfluidic devices according to embodiments of the present invention include an inlet port, an outlet port, and a channel or chamber having a non-uniform array of insulating features on one or more surfaces. Electrodes are provided for generation of a spatially non-uniform electric field across the array. A voltage source, which may be an A.C. and/or a D.C. voltage source may be coupled to the electrodes for the generation of the electric field.